

one hundred and ten of the birds, always singly or in pairs. They were never seen away from timber.

A few more were noted during the latter part of the month, but by the end of March the migration had apparently ceased, leaving only a few, a very few birds as summer residents.

37. *Planesticus migratorius migratorius*. Robin.—A few winter with us, but they are becoming scarcer year by year (*via* pots). Frequent the woodlands along the bayous, where they are very shy. On March 1 a flock of some seventy-five was observed just west of the city, by far the largest flock I have noted in years. Then a few on the 21st and 28th of March and the 4th of April; and on April 26th the last, two lone birds, were observed.

THE PINE SISKIN BREEDING IN IOWA.

BY W. J. HAYWARD AND T. C. STEPHENS.*

I.

The joy of seeing and identifying a new bird is exciting and satisfying, but to find a pair of migratory birds building a nest in a tree in your front yard, when to the best of your knowledge the rest of the species were busy with this operation in the pine forests 500 or 1,000 miles to the north of us, is more exciting and more interesting. When my young neighbor, Ralph Whitmer, called my attention to a nest Monday, April 13, 1914, in a pine tree 15 feet from his father's front porch, I knew something unusual had happened in bird land.

In late February and early March a new bird song more musical than the Blue Bird's contralto carol and more inspiring than the Robin's "cheerily, cheerily," had come to me on the frosty morning air. It was a new song to me, as it not only had in it the freshness of the first south wind of spring, but the tenderness and sympathy of the summer bird songs as well. A half hour of quiet study with field glass and bird guide convinced me that my first harbinger of spring was the Pine Siskin (*Spinus pinus*). A flock of twenty-five or

* Part I by Mr. Hayward, Part II by Mr. Stephens.



NEST OF PINE SISKIN, SIOUX CITY, IOWA

thirty of these small migrants greeted me for a week or ten days each morning as I stood waiting for my car. They were between $4\frac{1}{2}$ and 5 inches in length. The bird might easily be mistaken for the Goldfinch dressed in his winter suit, as its flight is very much like the Goldfinch. But the difference in the song makes the identification comparatively easy. When my young friend visited me the evening of April 13 and told me of the nest, I asked him what the birds looked like and he said "summer canaries." In answer to my question regarding their feeding habits, he replied that they seemed to eat "pine cones." Having my interest thus aroused, I went with him to the Colorado Blue spruce (*Picea pungens*) tree in the yard and near the end of a limb about nine feet from the ground was the nest. Getting a box upon which to stand, I could look over into the nest and see the bird. I had no difficulty in satisfying myself that it was the same bird that had so gloriously entertained me two or three weeks previously. I approached the nest with my hand, pulling aside the branches, and my hand was within six inches of the nest before the young housekeeper hopped to a branch no more than three inches the other side of her artistic home. This lack of fear seemed to be a characteristic of the bird, as she would remain on the nest when approached, no matter how often, but, when flushed, would return very promptly after the intruder withdrew. When the nest was first discovered April 13 it contained three eggs. These were greenish white, speckled with reddish brown. My young friend placed a basin of fresh water under the tree, which both male and female used as a bath tub and drinking fountain. But they were not tempted by the tray of bread crumbs that was invitingly placed by the basin of water, seemingly satisfied with the bill of fare furnished by the seeds of old and young pine cones on the tree. Only one of the eggs hatched, but this one bird was tenderly reared and was seen no more after May 5. Presumably it left with its fond parents for the far North on that date and is now being shown off to admiring relatives as an example as to just what the delightful spring air of Northwest Iowa can do for young Pine Siskins.

Just a word about the construction of this unusual nest. It was of the modern bungalow type. The foundation was rather loosely saddled on a pine bough about 15 inches from its tip, and consisted of dead pine twigs and pieces of dead weeds, grass, pieces of cord and roots were woven in to bind the foundation more securely. Placed rather loosely upon this was the real living apartment. This was made of finer roots, horse hair, and cotton. It was round like the nest of the Goldfinch, but only one-half as deep. The peculiarity of this nest was the lack of connection between the upper part of the nest and the lower.

On account of the rainy weather and the overhanging branches of the tree, it was impossible to see what kind of food was fed the young. This we regret very much. We both are hoping, however, that this pair of Siskins found Iowa such a hospitable state that they will want to build and breed here next year, and then we will endeavor to see just what kind of baby food they recommend.

II.

No Pine Siskins had been observed all winter (1913-14), by the present writer, until March 2, when four were seen up the Big Sioux river, feeding on the seeds of the common sunflower (*Helianthus annuus* L.).

They were next noted on March 16 on the college campus. On this date a good sized flock was observed in the pine trees. It was observed that on this date the pine cones were opening, thus making the seeds accessible; and upon these the Siskins were feeding. Where had they been all winter, and how did they manage to reach this spot on the very day the pine cones opened?

From this time on, until the third week in May, they could be seen daily in small flocks of from three or four to a dozen. On April 20 thirty-one were counted in one flock, and on the 23d this same flock had increased to more than fifty individuals. This large flock was seen almost daily for about two weeks; but after May 4 only scattered individuals were noted, the last record being May 21.

Mr. Hayward was kind enough to take me to see the Pine Siskin's nest on April 14, and at that time I verified his account of the behavior of the parent bird on the nest, as given above, as well as his identification of the species. It was not necessary to kill the bird to determine its identity.

After the brood had departed he very kindly turned the vacated nest over to me for examination. A fuller description of it may be desirable, since but few have had the privilege of personal examination of the nest of this species.

In the available literature I am able to find a specific account of the finding of only five nests (counting once the report of several nests by Simpson, noted below).

Anderson, in *The Birds of Iowa*, makes no suggestion that the species may breed in the state.

Kumlien & Hollister simply quote other observers who affirm a belief that it may breed in Wisconsin. Cory adds no information on this point.

Hatch leaves one to infer that he had definite knowledge of the breeding of this species in northern Minnesota, but he is vague on this point.

Barrows points to evidence that they were breeding in Michigan, but states that no nest has been found. Davie says they breed in Michigan.

Wheaton thinks they may breed in northern Ohio, but Dawson says this is still undetermined. Bruner, Wolcott, and Swenk think it may breed in the pine forest region of northwestern Nebraska.

Allen¹ refers to a nest having been found at Cambridge, Mass., in May, 1859, but I have not been able to locate the original account.

Fisher² records the finding of a Siskin's nest at Sing Sing, N. Y., on May 25, 1883, which contained four eggs. This nest was located in the top of the tree, twenty-four feet from the ground. It measured 8 cm. (outside) by 5 cm. (depth).

Allen³ gives a rather full account of the finding of a breeding pair of Pine Siskins in Orange county, N. Y., in the spring

¹ Auk, IV, p. 286.

² Bull. Nutt. Orn. Club, VIII, p. 180.

³ Auk, IV, p. 284.

of 1887. A nest which he found in process of construction on May 3 was later deserted. This one was only eight or ten feet from the ground. However, by May 12 another nest had been constructed, and contained four eggs. This nest was also in a Norway pine, but about thirty-five feet high. This writer also mentions the tameness of the sitting bird.

Ralph and Bagg⁴ record the breeding of the Pine Siskin at Remsen, N. Y., April 4-9, 1889.

R. B. Simpson⁵ records the finding of ten nests of this species in the hemlock forests and in the mountains of Warren county, Pennsylvania, during the spring of 1912. These nests varied in height from 10 to 30 feet from the ground. The first one was found on April 14; the others on through the month of April.

One other record, which, however, is over the Canadian line, is described by C. H. Morrell⁶ as being found on March 29, 1898, in Nova Scotia. This author describes the nest somewhat fully, and also mentions the bird's lack of fear.

The nest referred to in Mr. Hayward's paper possessed the following dimensions, although, it should be noted, the measurements were taken after the nest had been abandoned and was in a more or less dilapidated condition. Outside diameter, 90 mm.; inside diameter, 45 mm.; outside depth, 50 mm.; inside depth, 10 mm.

As Mr. Hayward says, the upper part, or superstructure, was very loosely laid upon the foundation; this, probably, is not a general characteristic.

The foundation of the nest was rather loosely constructed of coarse pine twigs, which were interwoven with string and some silk thread. Numerous broken bits of roots and stems (including stems of the tumble weed, *Salsola kali* var. *tenuifolia*) were used. The superstructure was composed of bits of much finer roots and stems, intermingled with a great deal of some sort of wool and human hair. More might be said of this latter component, because of its rather unique occurrence. The amount of this material was considerable. Short

⁴ Trans. Oneida Hist. Soc., XII, 1912, pp. 16-85.

⁵ Oologist, XXIX, p. 372.

⁶ Auk, XVI, 1899, p. 252.

strands (40-60 mm.) of rather coarse gray hair, and longer strands (150-200 mm.) of somewhat finer auburn hair, seemed to indicate two sources of material. There were a very few still coarser black hairs, which may have been horse hairs.

The presence of this material in the Pine Siskin's nest is of interest and significance. This bird is accustomed to nest in localities where such material is probably not available. We find here, then, an instance of its ability and readiness to adapt itself to new surroundings and conditions of environment.

This pair of birds was evidently overtaken with the breeding instinct before the bulk of the species had moved northward from this locality. Finding a suitable site in the spruce trees, no doubt accentuated the developing instinct. Construction was begun, and a foundation of the normal type was built from the pine twigs. Then in searching for the softer material in the immediate vicinity, which included a human habitation, they came across a supply of human hair, which they were able to recognize as suitable for their purpose.

There are, in this instance, two noteworthy facts. The establishment of a record of the breeding of the Pine Siskin in the state of Iowa; and the interesting modifiability of habit in response to external conditions.

Sioux City, Iowa.